You, Me & SVG!

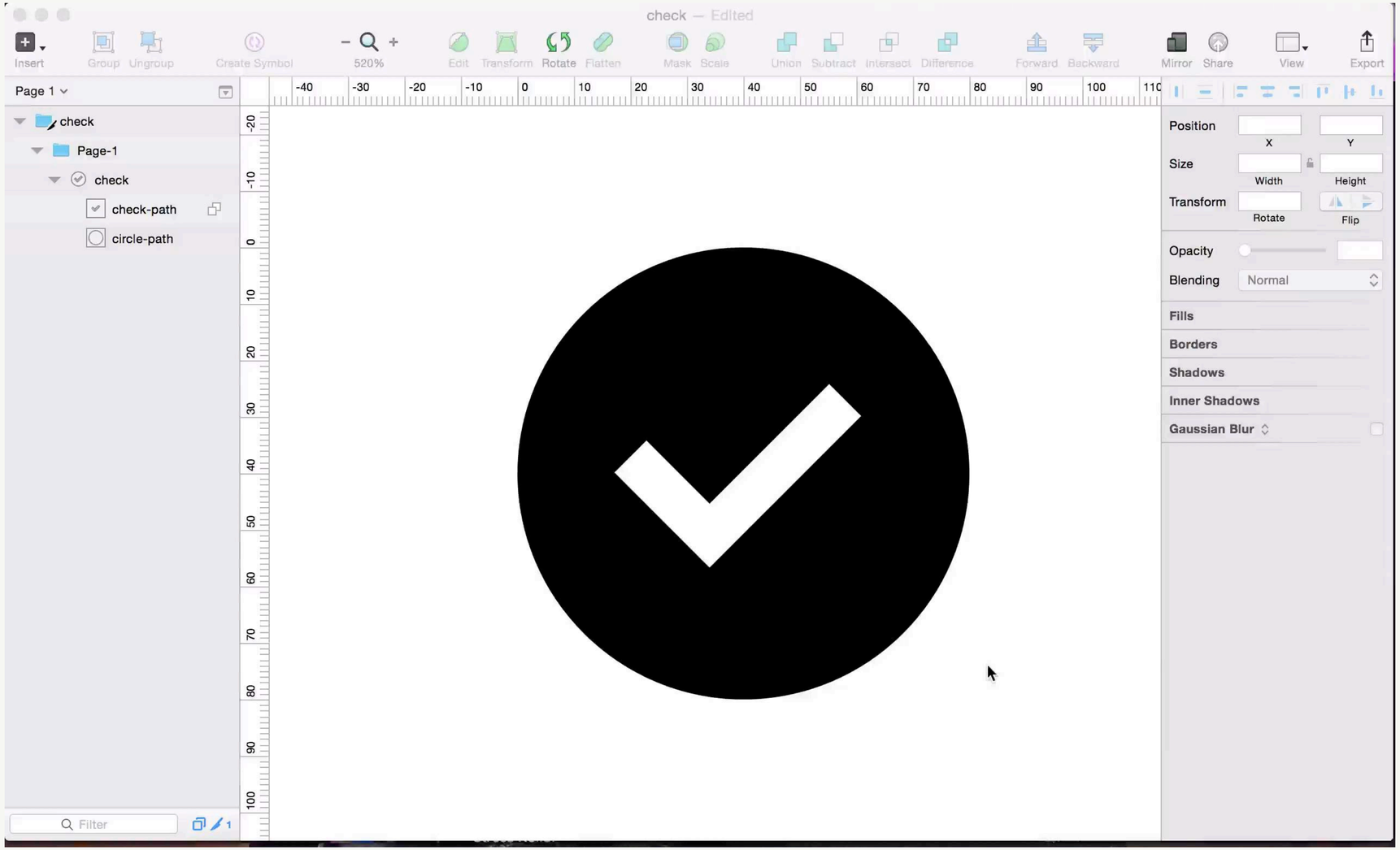
Level 4

SVG Encore!

Section 1 – Paths Are Fun

Exporting an SVG From a Drawing Tool

Here’s a check we drew in Sketch. Let’s export it as an SVG!



Looking at an Exported SVG

Whether exporting from a program or found online somewhere, SVG assets can have some funky code...

check.svg

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<svg width="80px" height="80px" viewBox="0 0 80 80" version="1.1" xmlns="http://www.w3.org/2000/svg"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:sketch="http://www.bohemiancoding.com/sketch/ns">
    <!-- Generator: Sketch 3.3.3 (12072) - http://www.bohemiancoding.com/sketch -->
    <title>check</title>
    <desc>Created with Sketch.</desc>
    <defs></defs>
    <g id="Page-1" stroke="none" stroke-width="1" fill="none" fill-rule="evenodd" sketch:type="MSPage">
        <path d="M40,0 C17.909,0 0,17.909 0,40 C0,62.091 17.909,80 40,80 C62.091,80 80,62.091 80,40
C80,17.909 62.091,0 40,0 L40,0 Z M34,56.657 L17.172,39.829 L22.828,34.171 L34,45.343 L55.172,24.171
L60.828,29.829 L34,56.657 L34,56.657 Z" id="check" fill="#000000" sketch:type="MSShapeGroup"></path>
    </g>
</svg>
```

Scary long path

check.svg looks like this: 

What is going on here?

Understanding Paths

Paths are very powerful for creating complicated SVGs, but they're better suited for creation by software.

```
<path d="..."></path>
```

Draws an object by following path instructions you send it

We'll show you the basics, but you typically wouldn't write this by hand.

Comparing Path vs. Polygon

What would a triangle from our badge look like as a path?

As a polygon:

```
<polygon points="7,10 12,0 17,10"/>
```

Just another way to draw a shape!

As a path:

```
<path d="M7,10 L7,10 L12,0 L17,10 Z"></path>
```

start path

draw line between points

close path

MLZ are all path commands that will draw straight lines.

Cubic Bézier Path

You can use `C` in your path to denote a cubic Bézier curve.

Cubic Bézier

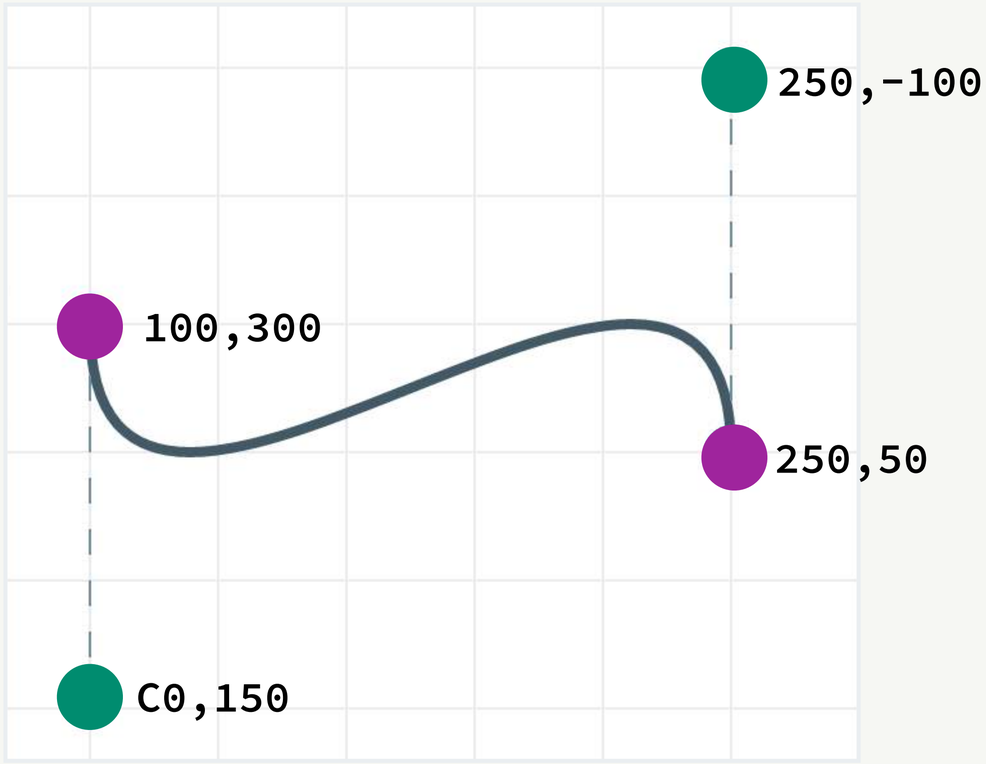
```
<path d="M100,300 C0,150 250,-100 250,50"/>
```

x,y first point

x,y first handle

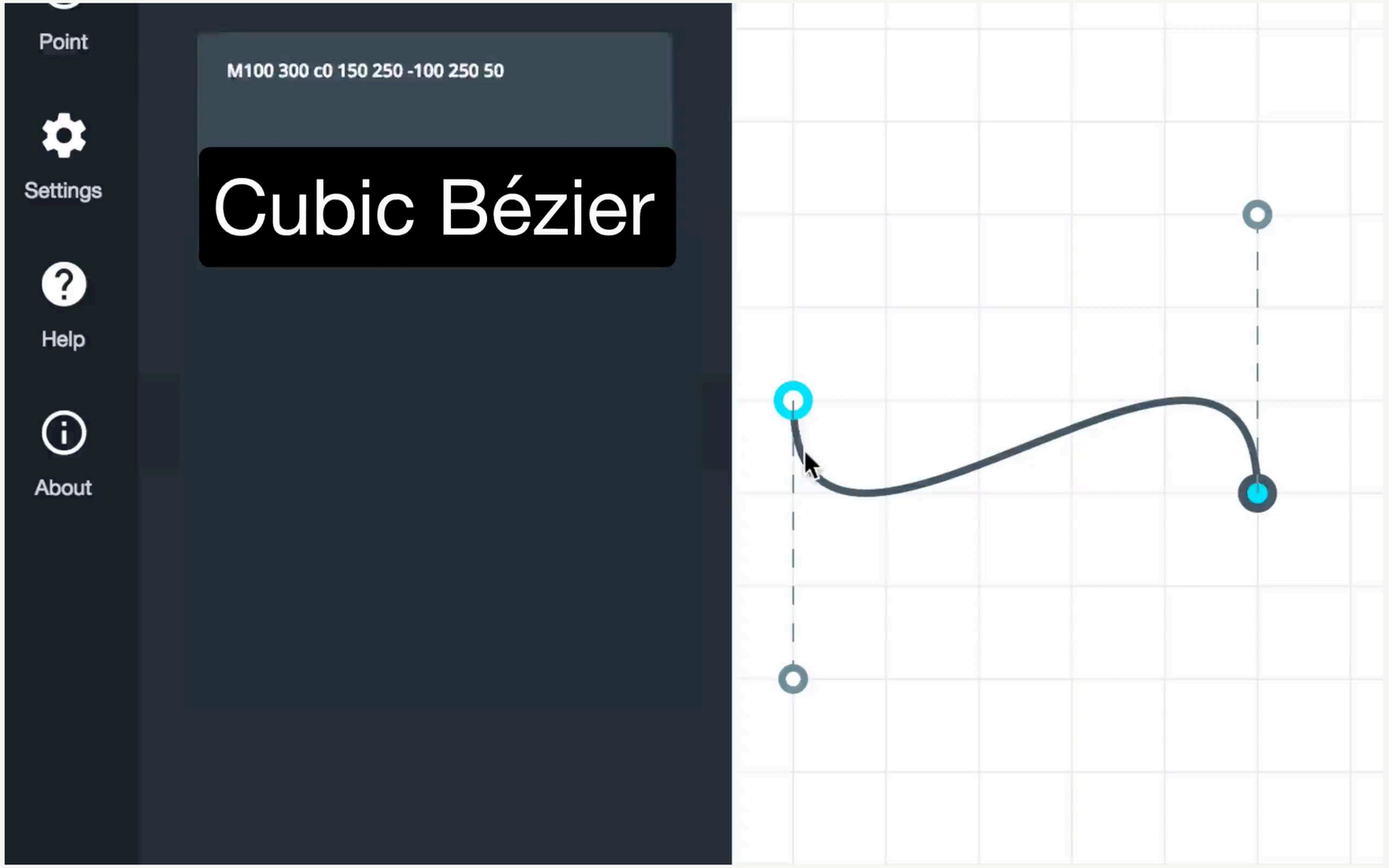
x,y second handle

x,y second point



Great article about paths: ***http://www.sitepoint.com/closer-look-svg-path-data/***

Playing Around With Cubic Bézier



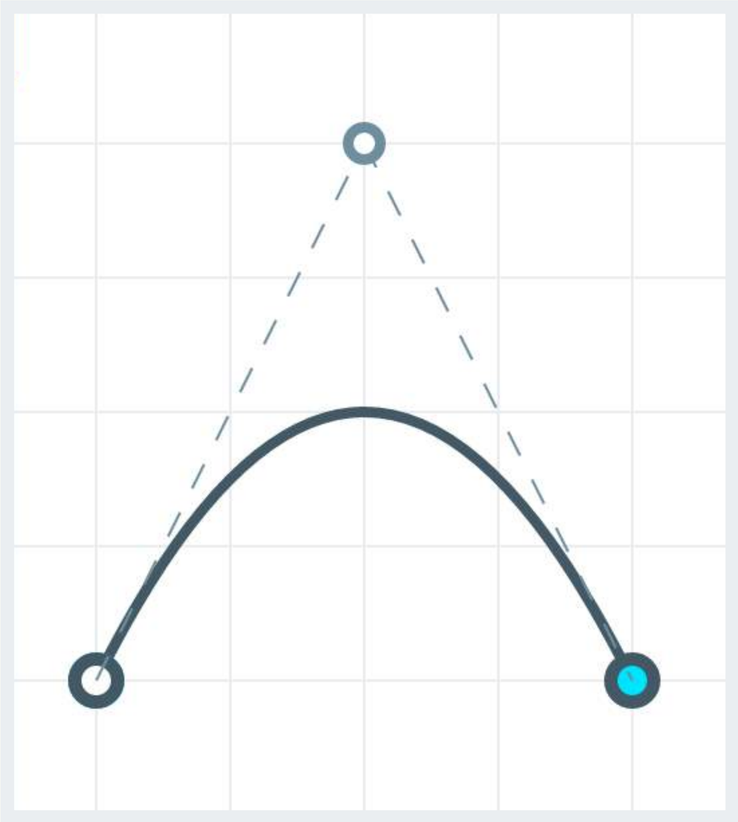
Play around with paths here: ***http://anthonydugois.com/svg-path-builder/***

Quadratic Bézier Curve

Similarly, you can use `**Q**` to denote a quadratic Bézier curve.

Quadratic Bézier

```
<path d="M100 200 Q200 0 300 200"/>
```

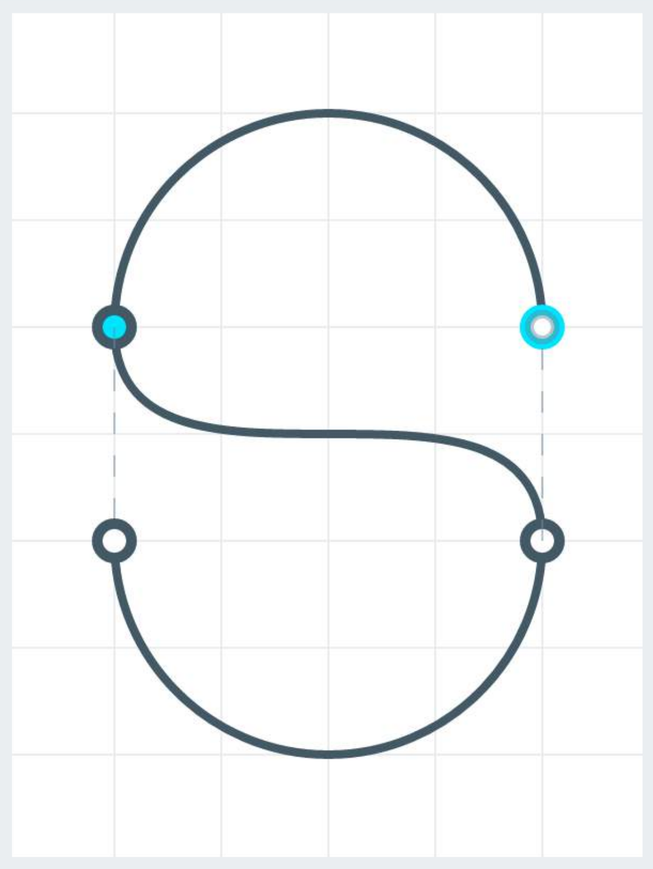


Elliptical Arc Curve

You can denote an elliptical arc curve with a leading `A`. This one has the most parameters:

Elliptical arc

```
<path d="M350 300 A50 50 0 1 0 150 300 C150 400 350 300 350 400 A50 50 0 1 1 150 400"/>
```



Styling Paths

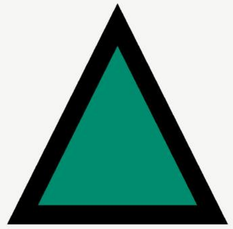
Paths can be styled or animated just like any other SVG element!

```
<path d="M7,10 L12,0 L17,10 L7,10 Z" fill="#008B6F" stroke="black" stroke-width="1">
</path>
```

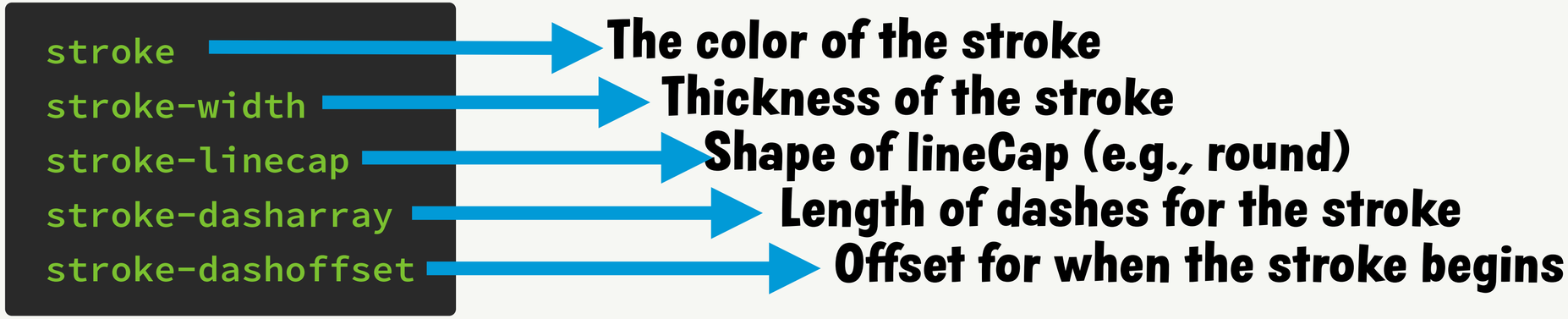
You can also do these styles in CSS.

```
<path d="M7,10 L12,0 L17,10 L7,10 Z"></path>
```

```
path {
  fill: #008B6F;
  stroke: #000;
  stroke-width: 2px;
}
```



These attributes exist to style the path:



Challenges